

Box 7

DWELLING STOCK IN THE EURO AREA – NEW DATA FROM THE EUROSISTEM HOUSEHOLD FINANCE AND CONSUMPTION SURVEY

Dwellings represent the most important part of households' portfolios. This is because they are, first, a source of essential services to the households and, second, in value terms, the single largest asset of the household sector and the main collateral for household debt. Consequently, central banks have a keen interest in understanding the evolution of the dwelling stock both in real terms, i.e. as an investment in future housing services, and in monetary terms given the consequent wealth effects on consumption, debt capacity and the financial fragility of households.

This box presents new data on both the real and nominal stock of dwellings collected by the Eurosystem Household Finance and Consumption Survey (HFCS), the results of which were recently published by the ECB.¹ The HFCS has collected information on assets, claims, liabilities and income from about 62,000 households with a set of coordinated and well-designed surveys carried out in all euro area countries other than Estonia and Ireland during the period 2008-10. The HFCS data permit an analysis of wealth and consumption at the level of individual households and their members. In this box, only data on the dwelling stock are presented, aggregated at the country and euro area level.

Compared with census data, the HFCS offers information about the real capital stock, which, importantly, is also linked to information on ownership. Compared with national accounts on the value of residential capital stock, the HFCS offers complementary information on the total value of dwelling stock and the level of dwelling prices based on households' self-assessments.² Self-assessed values can differ substantially from values in the national accounts. Arguably, these self-assessed values, whether right or wrong, can influence the economic decisions of households.

Real dwelling stock and ownership structure

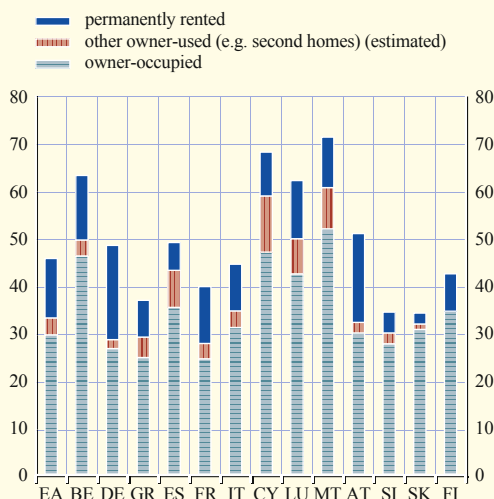
Based on the HFCS data, the total number of square metres of dwellings used by the household sector in each country is estimated. For ease of comparisons, all figures are normalised in per person terms. Clearly, this measure of dwelling stock does not adjust for issues of quality, location or age of the capital stock, all of which will therefore be reflected in the house price per square metre. Nevertheless, the square metre index is one of the most standard and comparable

1 See "The Eurosystem household finance and consumption survey – Results from the first wave", *Statistics Paper Series*, No 2, ECB, April 2013.

2 For more details, see Chapter 1.4 of "The Eurosystem household finance and consumption survey – Methodological report for the first wave", *Statistics Paper Series*, No 1, ECB, April 2013.

Chart A Size of dwellings used by private households

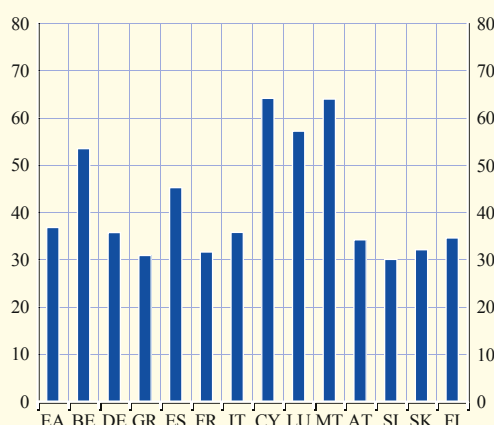
(square metres, per person)



Sources: HFCS and ECB estimates.
Notes: In the case of Finland, data for other owner-used dwellings are not available. Data are not available for the Netherlands or Portugal. The size of other owner-used dwellings is estimated, assuming the same price per square metre as for owner-occupied dwellings.

Chart B Size of dwellings owned by private households (estimated)

(square metres, per person)



Sources: HFCS and ECB estimates.
Note: Data are not available for the Netherlands or Portugal.

measures available and gives a reasonably good idea of the real housing stock across locations and countries (an alternative measure used in censuses and also available in the HFCS is the number of housing units).

Chart A shows the total square metres per person used by resident households. The bottom part of each bar shows the square metres of owner occupied dwellings, in the middle are the square metres for other dwellings used by their owners (e.g. second homes) and at the top those permanently rented by households.³ All values are divided by the respective population. Data on the real stock of capital are missing in the HFCS for the Netherlands and Portugal, and the weighted average euro area figure is calculated only for the available country data.

For almost half of the countries, including all the largest ones, the per person dwellings stock is of a very similar size, between approximately 40 and 50m² per person (including second and vacant homes). The euro area average (weighted by population) is 46m² per person. In four countries, namely Belgium, Cyprus, Luxembourg and Malta, the estimated dwelling space per person exceeds 60m², while, at the other end of the distribution, households in Greece, Slovenia and Slovakia use less than 40m² per person.

³ The second component, referring to second homes, etc., is an estimate that contains potentially a wider margin of error. The estimate is based on the HFCS values of property for own use (other than main residence) divided by the average price per square metre of owner-occupied dwellings in the same country, also calculated from the HFCS. In Finland, these dwellings cannot be distinguished from owner-occupied dwellings. Note that this category of property also includes properties located in a country other than the one in which the respective household is resident.

These rather small differences in average dwelling space, at least in the largest countries, hide significant cross-country variation in the ownership and typology of dwellings. For example, in Germany and Austria, there are relatively many permanently rented dwellings. In Spain, Cyprus, Luxembourg and Malta, on the other hand, apart from high home ownership, there are also relatively more properties for other own use, such as second or vacant homes. Typology of dwellings and ownership structure matter, particularly when households react to shocks such as sharp house price fluctuations.

Chart B provides some further information on the ownership structure of dwellings. The chart only includes a very approximate estimate of dwellings that are owned by households. Rented dwellings that are owned by the public sector at large, non-profit institutions, the corporate sector or, less likely, other foreign owners, are excluded.⁴ A comparison of the two charts suggests that ownership structures of dwellings vary significantly across countries. In particular, in Austria, a very significant part of the (rented) dwelling stock is estimated to be owned by sectors other than the resident household sector, possibly by the public sector and non-profit institutions, but also potentially by the corporate sector.

A comparison of Charts A and B also highlights the difference between the dwelling wealth of the household sector and the dwelling wealth of a country (which comprises all resident sectors). The difference between the two can be substantial and varies from country to country, possibly as a result of different housing policies. The dwelling wealth of a country, not that of the household sector, is the relevant measure if what is of interest is the stream of housing services households can enjoy both now and in the future from the accumulated dwelling stock (irrespective of who owns that stock).

House prices and the value of dwellings

As regards house prices and the nominal value of dwellings owned by households, Chart C shows the estimated house price per square metre for owner-occupied dwellings (red dots) and the per person total value of dwellings owned by households (the latter is the equivalent of Chart B but in monetary terms). Both charts are based on households' own assessments in the HFCS.

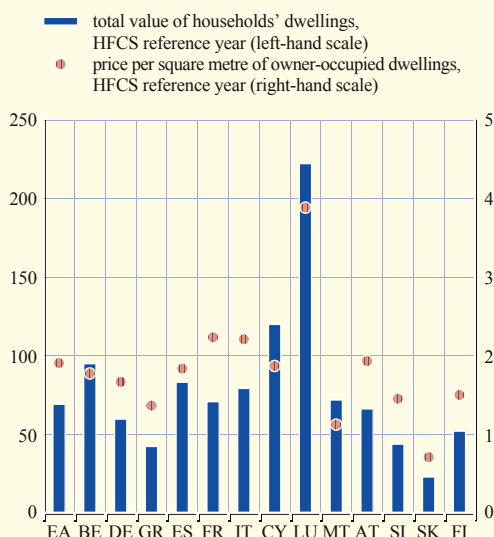
For the euro area, the (population) weighted average price per square metre of owner-occupied dwellings is estimated to be €1,900. There is substantial dispersion around this price, even for the larger countries such as Germany, Spain, France and Italy with similar dwelling stocks per person. In France, the estimate is €2,230, 35% higher than in Germany (€1,660), with Spain and Italy somewhere in between. Cross-country house price dispersion is even larger when including all euro area countries.

These differences in prices are reflected in the total value of the balance sheets of households. Given the importance of dwellings in households' portfolios, the resulting differences in the value of portfolios due to house prices often tend to dominate all other factors. As a consequence,

⁴ The estimate of the stock of rented dwellings owned by the resident household sector is based on a reasoning similar to that followed for second homes, i.e. by dividing the total value of the respective homes (taken from the HFCS) by the average price per square metre of owner-occupied dwellings (also HFCS data). The estimate is potentially subject to error. For example, if the price per square metre is systematically lower for rented dwellings than for owner-occupied dwellings, the rented stock in Chart B could be higher in all countries. Furthermore, the dwelling stock owned by households may be underestimated if the wealthiest few households that own several dwellings are not correctly captured by the survey.

Chart C Total per person value of households' dwellings and price per square metre of owner-occupied dwellings

(euro; thousands)

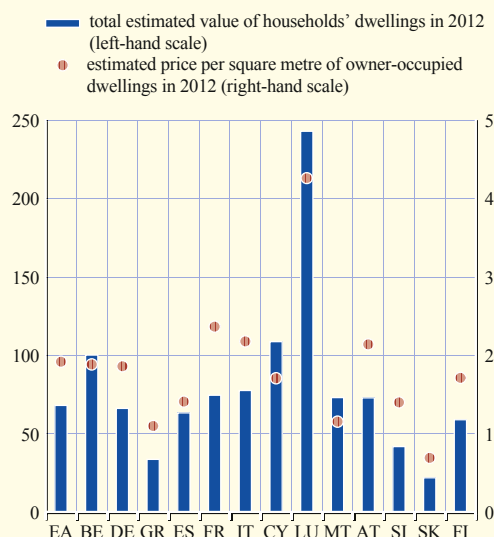


Source: HFCS.

Notes: The price per square metre of owner-occupied dwellings is not available for the Netherlands or Portugal. In the case of Finland, the total value of households' dwellings refers to the value of owner-occupied dwellings. The total value of households' dwellings includes: i) the value of owner-occupied dwellings, ii) the value of other owner-used dwellings (e.g. second homes) and iii) rented dwellings owned by households.

Chart D Total estimated per person value of households' dwellings in 2012 and estimated price per square metre of owner-occupied dwellings in 2012

(euro; thousands)



Sources: HFCS and ECB estimates based on national sources for Residential Property Price Indices (RPPI).

Notes: The prices and values for 2012 are estimated using the cumulated RPPI growth rates from the HFCS reference year up to 2012. Indices for existing dwellings (houses and flats) were used in the case of Belgium, Germany, Spain, France, Slovakia and Finland, for dwellings (new and existing houses and flats) in the case of Italy, Cyprus, Malta, Austria and Slovenia and for all flats (new and existing) in the case of Greece and Luxembourg. The Netherlands and Portugal are excluded since the price per square metre of owner-occupied dwellings is not available in the HFCS.

a substantial part of the differences in the gross and net balance sheet wealth of the household sector across countries is attributable to different house price levels.

It is important to note in this respect that the dwelling wealth shown in Chart C is based on paper value, i.e. it cannot be monetised for the household sector as a whole. This is because the vast majority of transactions affecting existing dwellings take place between households that are resident in the same country. Therefore, for the household sector as a whole, dwelling capital is non-tradable and very largely not recoverable, while a single household can sell its dwelling assets.

Thus, house price fluctuations may have important distributional effects within the household sector but they do not affect the sector's overall position. Typically, high house prices may benefit house owners that wish to "trade down" at the expense of other resident households, such as first-time buyers or young households "trading up". The household sector as a whole, however, is hardly better or worse off when house prices are high (or low), even though the value of its balance sheet may differ as a result.

Even with this proviso, house price fluctuations may have significant balance sheet effects on economic activity and the decisions of households. They affect the collateral value of the

main asset on the balance sheet of single households and consequently also their debt capacity. They can have significant distributional effects and can also affect households' expectations.

Chart D shows an estimate of prices per square metre of dwellings and the per person total value of dwellings owned by the household sector in 2012. The estimates use the HFCS square metre prices, "updating" them with the available house price index for each country.⁵ In the period since the fieldwork of the survey, the house price index fell in Greece and Spain by over 20%, while it increased by more than 10% in Germany and Austria. The other countries experienced weaker house price dynamics. Given the importance of dwellings in households' portfolios, the effects of such house price fluctuations on the value of households' balance sheets could be huge. For example, the implied fall in the nominal dwelling wealth of Spanish households, other things being the same, would have been the equivalent of almost two years' gross income. Whether "real" or "notional", capital gains or losses of such magnitude are bound to affect the debt capacity, decisions and expectations of the household sector, as well as the distribution of wealth within the household sector of any country.

Conclusions

The HFCS offers information on real and nominal dwelling stock and ownership structures for a large number of euro area countries within a coherent framework. This structural information is useful when considering how house price fluctuations and other macroeconomic shocks are transmitted to economic activity or the channels through which these shocks may affect financial stability. It is also of great value when analysing other issues, such as the distribution of wealth, the access of households to housing services or issues related to residential fixed investment. The publication of the HFCS data is expected to give an impetus to research and analysis in all of these fields and to allow more consistent cross-country studies.

⁵ This example of course mixes data from self-assessments with statistical information from transactions and should therefore be considered with caution.